

METHOD AND APPARATUS FOR OPERATING AN  
ELECTROCHEMICAL FUEL CELL

Abstract

An operating method increases fuel cell life or durability, particularly that of a solid polymer electrolyte fuel cell. The fuel cell has a mean life expectancy that may be 5 empirically determined. The method comprises the step of reversing the direction of flow of at least one of the fluids supplied to the fuel cell (for example, the fuel and/or oxidant reactants) through its corresponding flow field 10 after a time period of operation of the fuel cell. The time period is less than the mean life expectancy of the cell and has a value that is a substantial part of the mean life expectancy. The flow may be reversed once or 15 several times over the life of the fuel cell. An improved apparatus carries out the method.

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